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EXAMINER

YOUNG, JANELLE N

ART UNIT PAPER NUMBER

2618

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/529,399	BAN ET AL.	
	Examiner	Art Unit	
	Janelle N. Young	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bick (US Patent 2002/0049070) and further in view of Murphy (EP 1054550 A2).

As for claim 1, Bick teaches a mobile telephone handset having an operating input unit, the input unit comprising: handwriting

a ten-key pad being comprised of a key mat on which ten-key buttons with respective projections on the under surfaces thereof are laid out and a board on which respective contacts corresponding to the projections are laid out (Fig. 1-3; Abstract; and Page 1, Para 0005-0006 of Bick); and

an electrostatic capacity sensing pad (Fig 3:20-21 of Bick) having through holes to be inserted the projections corresponding thereto and being provided with between the key mat and the board (Abstract; Page 1, Para 0009-0011; Pages 1-2, Para 0024; and Page 2, Para 0027 of Bick).

What Bick does not explicitly teach is portable telephone handset; which is interpreted as a mobile telephone handset, is used for entering information by handwriting.

However, Murphy teaches a portable telephone handset apparatus, comprising: handwriting-input permits the user to input numerical, alphabetical or symbol characters and/or commands to the telephone by tracing patterns using a finger stylus on the surface (Fig. 1-2; Abstract; Col. 2, line 37-Col. 3, line 42; Col. 4, line 58-Col. 5, line 53; and Col. 11, lines 4-27 of Murphy). In addition, Murphy teaches pre-stored data elements; which can be interpreted as item names kept in the memory are background, line thickness, and line color (Col. 5, line 40-Col. 6, line 3 and Col. 11, lines 4-27 of Murphy).

It would have been obvious to one of ordinary skill of the art at the time the invention was made to incorporate a touch-sensitive LCD panel or keypad, as taught by Murphy, in keypad assembly for a portable radiotelephone wherein a keypad can also be used as a touch screen panel of Bick, because Bick already teaches a portable radiotelephone including a keypad assembly that can be used as a touch screen (Abstract; Page 2, Para 0025 & 0027-0028 of Bick).

The motivation of this combination would be is to provide a keypad assembly for a portable radiotelephone wherein a keypad can also be used as a touch screen panel without increasing the volume of the radiotelephone, and a method of controlling the same. Further, another object of the present invention is to provide a keypad assembly for a portable radiotelephone and a method of controlling the same, in which when the keypad assembly is used for a touch screen function, it is unnecessary to employ an input means such as a stylus pen. Still another object of the present invention is to provide a keypad assembly for a portable radiotelephone and a method of controlling

the same, in which The keypad may operate as a conventional keypad and, either independently or simultaneously, as a touch sensitive pointing device, as taught by Bick in Page 2, Para 0025 & 0028. Murphy avoids the need for multiple keystrokes to enter non-numeric data such as alphabetic characters (including those of different languages) and symbols. It minimizes the need for dexterity in operation by providing an alternative to small keys on small keypads. The keypad may be used in a touch pad by sliding a finger over the surface of the keymat (Fig. 1-2; Abstract; Col. 2, line 37-Col. 3, line 42; Col. 4, line 58-Col. 5, line 53; and Col. 11, lines 4-27 of Murphy).

As for claim 2, Bick teaches a mobile telephone handset having an operating input unit (Fig. 3-4:17-18 of Bick), wherein the ten-key buttons are etches; which reads on claimed printed, on the key mat (Page 1-2, Para 0024 of Bick).

As for claim 3, Bick teaches a mobile telephone handset comprising:

a ten-key pad being comprised of a key mat on which gaskets (Fig. 3 of Bick); which reads on claimed ten-key buttons with respective projections on the under surfaces thereof are laid out and a key circuit board (Fig. 1&2:7 of Bick) on which respective contacts corresponding to the projections are laid out (Page 2, Para 0034 of Bick);

an electrostatic capacity sensing pad for sensing an electrostatic capacity change to detect a touched region and having through holes to be inserted the projections corresponding thereto and being provided with between the key mat and the key circuit board (Fig. 1&2:7 of Bick) (Page 2, Para 0035 and Page 3-4, Para 0048 of Bick);

a memory (Fig. 2:16 of Bick) for keeping predetermined item names as table elements corresponded to respective small regions provided within a pad region of the electrostatic capacity sensing pad (Page 1, Para 0023 of Bick);

an item name selector for selecting an item name corresponded to a small region in which a representative point of the touched region is situated (Page 2, Para 0027); and

a data value determiner for determining a data value of the selected item name according to the size of the touched region (Page 2, Para 0027 of Bick).

As for claim 4, Bick teaches a mobile telephone handset, further comprising:

a memory controller for storing the touched region detected by the electrostatic capacity sensing pad in a memory (Fig 2:15; Page 1, Para 0023; and Page 2, Para 0026-0027 of Bick); and

a locus generator for generating a locus from a set of representative points of the touched region (Page 1, Para 0003 and Page 1-2, Para 0024 of Bick);

As for claim 5, Bick teaches a mobile telephone handset, further comprising:

a display panel (Fig 1, 2, & 6:4; Page 1, Para 0023; and Page 2, Para 0026-0027 of Bick); and

a display controller for generating displaying data from the selected item name and the determined data value to display a concrete symbol corresponded to the determined value in an area within the display panel

assigned according to the selected item name (Fig 2:15; Page 1, Para 0023; and Page 2, Para 0026-0027 of Bick).

As for claim 6, Murphy teaches a mobile telephone handset, wherein each of the item names kept in the memory has subdivision item names thereof, and the data value determiner determines a data value by tracking the subdivision item names (Col. 2, line 53-Col. 3, line 18; Col. 5, line 40-Col. 6, line 3; and Col. 11, lines 4-27 of Murphy).

2. Claims 7-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bick (US Patent 2002/0049070) and further in view of Murphy (EP 1054550 A2).

As for claim 7, Bick teaches a mobile telephone handset comprising:

a ten-key pad being comprised of a key mat on which gaskets (Fig. 3 of Bick); which reads on claimed ten-key buttons with respective projections on the under surfaces thereof are laid out and a key circuit board (Fig. 1&2:7 of Bick) on which respective contacts corresponding to the projections are laid out (Page 2, Para 0034 of Bick);

an electrostatic capacity sensing pad for sensing an electrostatic capacity change to detect a touched region and having through holes to be inserted the projections corresponding thereto and being provided with between the key mat and the key circuit board (Fig. 1&2:7 of Bick) (Page 2, Para 0035 and Page 3-4, Para 0048 of Bick);

a memory controller for storing the touched region detected by the electrostatic capacity sensing pad in a memory (Fig 2:15; Page 1, Para 0023; and Page 2, Para 0026-0027 of Bick);

a locus generator for generating a locus from a set of representative points of the touched region (Page 1, Para 0018 of Bick); and

a breakpoint detector for detecting a breakpoint of the locus according to a feature of the touched region (Page 1, Para 00007-0009 and Page 2, Para 0027 of Bick).

What Bick does not explicitly teach is portable telephone handset; which is interpreted as a mobile telephone handset, is used for entering information by handwriting.

However, Murphy teaches a portable telephone handset apparatus, comprising: handwriting-input permits the user to input numerical, alphabetical or symbol characters and/or commands to the telephone by tracing patterns using a finger stylus on the surface (Fig. 1-2; Abstract; Col. 2, line 37-Col. 3, line 42; Col. 4, line 58-Col. 5, line 53; and Col. 11, lines 4-27 of Murphy). In addition, Murphy teaches pre-stored data elements; which can be interpreted as item names kept in the memory are background, line thickness, and line color (Col. 5, line 40-Col. 6, line 3 and Col. 11, lines 4-27 of Murphy).

It would have been obvious to one of ordinary skill of the art at the time the invention was made to incorporate a touch-sensitive LCD panel or keypad, as taught by Murphy, in keypad assembly for a portable radiotelephone wherein a keypad can also

be used as a touch screen panel of Bick, because Bick already teaches a portable radiotelephone including a keypad assembly that can be used as a touch screen (Abstract; Page 2, Para 0025 & 0027-0028 of Bick).

The motivation of this combination would be is to provide a keypad assembly for a portable radiotelephone wherein a keypad can also be used as a touch screen panel without increasing the volume of the radiotelephone, and a method of controlling the same. Further, another object of the present invention is to provide a keypad assembly for a portable radiotelephone and a method of controlling the same, in which when the keypad assembly is used for a touch screen function, it is unnecessary to employ an input means such as a stylus pen. Still another object of the present invention is to provide a keypad assembly for a portable radiotelephone and a method of controlling the same, in which The keypad may operate as a conventional keypad and, either independently or simultaneously, as a touch sensitive pointing device, as taught by Bick in Page 2, Para 0025 & 0028. Murphy avoids the need for multiple keystrokes to enter non-numeric data such as alphabetic characters (including those of different languages) and symbols. It minimizes the need for dexterity in operation by providing an alternative to small keys on small keypads. The keypad may be used in a touch pad by sliding a finger over the surface of the keymat (Fig. 1-2; Abstract; Col. 2, line 37-Col. 3, line 42; Col. 4, line 58-Col. 5, line 53; and Col. 11, lines 4-27 of Murphy).

As for claim 8, Bick teaches a mobile telephone handset, wherein the breakpoint detector detects the breakpoint according to a size of the touched region (Fig. 5 and Page 2, Para 0027-0028 of Bick).

As for claim 9, Murphy teaches a mobile telephone handset, further comprising: a character recognizer for recognizing a character from the locus generated by the locus generator and the breakpoint detected by the breakpoint detector (Fig. 1-2; Abstract; Col. 2, line 37-Col. 3, line 42; Col. 4, line 58-Col. 5, line 53; and Col. 11, lines 4-27 of Murphy).

As for claim 10, Bick teaches a mobile telephone handset, further comprising: a direction determiner for determining a touch direction according to a figure of the touched region detected by the electrostatic capacity sensing pad; and wherein the breakpoint detector detects the breakpoint according to the touch direction (Fig. 5; Abstract; Page 1, Para 006; Page 1-2, Para 0024; and Page 2, Para 0027 of Bick).

As for claim 11, Bick teaches a mobile telephone handset, further comprising: a character recognizer (Fig. 4:50 of Bick) for recognizing a character from the locus generated by the locus generator and the breakpoint detected by the breakpoint detector (Page 2, Para 0032-0033 and Page 3, Para 0043-0046 of Bick).

As for claim 12, Bick teaches a mobile telephone handset, wherein the breakpoint detector detects the breakpoint according to a number of the touched regions detected by the electrostatic capacity sensing pad simultaneously (Page 2, Para 0025 of Bick).

As for claim 13, Murphy teaches a mobile telephone handset, further comprising: a character recognizer for recognizing a character from the locus generated by the locus generator and the breakpoint detected by the breakpoint detector (Fig. 1-2;

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Abstract; Col. 2, line 37-Col. 3, line 42; Col. 4, line 58-Col. 5, line 53; and Col. 11, lines 4-27 of Murphy).

3. Claims 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bick (US Patent 2002/0049070) and further in view of Murphy (EP 1054550 A2).

As for claim 14, Bick teaches a mobile telephone handset comprising:

a ten-key pad being comprised of a key mat on which gaskets (Fig. 3 of Bick); which reads on claimed ten-key buttons with respective projections on the under surfaces thereof are laid out and a key circuit board (Fig. 1&2:7 of Bick) on which respective contacts corresponding to the projections are laid out (Page 2, Para 0034 of Bick);

an electrostatic capacity sensing pad for sensing an electrostatic capacity change to detect a touched region and having through holes to be inserted the projections corresponding thereto and being provided with a portion having the through holes between the key mat and the key circuit board (Fig. 1&2:7 of Bick) and with the other portion on a part of a chassis of the mobile telephone handset (Page 2, Para 0035 and Page 3-4, Para 0048 of Bick);

a memory controller for storing the touched region detected by the electrostatic capacity sensing pad in a memory (Fig 2:15; Page 1, Para 0023; and Page 2, Para 0026-0027 of Bick);

a locus generator for generating a locus from a set of representative points of the touched region into memory (Page 1, Para 0018 of Bick); and

a breakpoint detector for detecting a breakpoint of the locus according to a feature of the touched region (Page 1, Para 00007-0009 and Page 2, Para 0027 of Bick).

What Bick does not explicitly teach is portable telephone handset; which is interpreted as a mobile telephone handset, is used for entering information by handwriting.

However, Murphy teaches a portable telephone handset apparatus, comprising: handwriting-input permits the user to input numerical, alphabetical or symbol characters and/or commands to the telephone by tracing patterns using a finger stylus on the surface (Fig. 1-2; Abstract; Col. 2, line 37-Col. 3, line 42; Col. 4, line 58-Col. 5, line 53; and Col. 11, lines 4-27 of Murphy). In addition, Murphy teaches pre-stored data elements; which can be interpreted as item names kept in the memory are background, line thickness, and line color (Col. 5, line 40-Col. 6, line 3 and Col. 11, lines 4-27 of Murphy).

It would have been obvious to one of ordinary skill of the art at the time the invention was made to incorporate a touch-sensitive LCD panel or keypad, as taught by Murphy, in keypad assembly for a portable radiotelephone wherein a keypad can also be used as a touch screen panel of Bick, because Bick already teaches a portable radiotelephone including a keypad assembly that can be used as a touch screen (Abstract; Page 2, Para 0025 & 0027-0028 of Bick).

The motivation of this combination would be is to provide a keypad assembly for a portable radiotelephone wherein a keypad can also be used as a touch screen panel

without increasing the volume of the radiotelephone, and a method of controlling the same. Further, another object of the present invention is to provide a keypad assembly for a portable radiotelephone and a method of controlling the same, in which when the keypad assembly is used for a touch screen function, it is unnecessary to employ an input means such as a stylus pen. Still another object of the present invention is to provide a keypad assembly for a portable radiotelephone and a method of controlling the same, in which The keypad may operate as a conventional keypad and, either independently or simultaneously, as a touch sensitive pointing device, as taught by Bick in Page 2, Para 0025 & 0028. Murphy avoids the need for multiple keystrokes to enter non-numeric data such as alphabetic characters (including those of different languages) and symbols. It minimizes the need for dexterity in operation by providing an alternative to small keys on small keypads. The keypad may be used in a touch pad by sliding a finger over the surface of the keymat (Fig. 1-2; Abstract; Col. 2, line 37-Col. 3, line 42; Col. 4, line 58-Col. 5, line 53; and Col. 11, lines 4-27 of Murphy).

As for claim 15, Murphy teaches a mobile telephone handset, wherein the touch direction determined by the direction determiner is a direction held by the user(Fig. 5 and Page 1, Para 0018 of Bick);.

4. Claims 16-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bick (US Patent 2002/0049070) and further in view of Murphy (EP 1054550 A2).

As for claim 16, Bick teaches a mobile telephone handset comprising:

a ten-key pad being comprised of a key mat on which gaskets (Fig. 3 of Bick); which reads on claimed ten-key buttons with respective projections on the under surfaces thereof are laid out and a key circuit board (Fig. 1&2:7 of Bick) on which respective contacts corresponding to the projections are laid out (Page 2, Para 0034 of Bick);

an electrostatic capacity sensing pad for sensing an electrostatic capacity change to detect a touched region and having through holes to be inserted the projections corresponding thereto and being provided with a portion having the through holes between the key mat and the key circuit board (Fig. 1&2:7 of Bick) and with the other portion on a part of a chassis of the mobile telephone handset (Page 2, Para 0035 and Page 3-4, Para 0048 of Bick); and

a controller (Fig. 2:15 of Bick) for selecting a function corresponded to a feature of the touched region detected by the electrostatic capacity sensing pad and executing the selected function (Page 1, Para 0023 and Page 2, Para 0026-0027 of Bick).

What Bick does not explicitly teach is portable telephone handset; which is interpreted as a mobile telephone handset, is used for entering information by handwriting.

However, Murphy teaches a portable telephone handset apparatus, comprising: handwriting-input permits the user to input numerical, alphabetical or symbol characters and/or commands to the telephone by tracing patterns using a finger stylus on the surface (Fig. 1-2; Abstract; Col. 2, line 37-Col. 3, line 42; Col. 4, line 58-Col. 5, line 53;

and Col. 11, lines 4-27 of Murphy). In addition, Murphy teaches pre-stored data elements; which can be interpreted as item names kept in the memory are background, line thickness, and line color (Col. 5, line 40-Col. 6, line 3 and Col. 11, lines 4-27 of Murphy).

It would have been obvious to one of ordinary skill of the art at the time the invention was made to incorporate a touch-sensitive LCD panel or keypad, as taught by Murphy, in keypad assembly for a portable radiotelephone wherein a keypad can also be used as a touch screen panel of Bick, because Bick already teaches a portable radiotelephone including a keypad assembly that can be used as a touch screen (Abstract; Page 2, Para 0025 & 0027-0028 of Bick).

The motivation of this combination would be is to provide a keypad assembly for a portable radiotelephone wherein a keypad can also be used as a touch screen panel without increasing the volume of the radiotelephone, and a method of controlling the same. Further, another object of the present invention is to provide a keypad assembly for a portable radiotelephone and a method of controlling the same, in which when the keypad assembly is used for a touch screen function, it is unnecessary to employ an input means such as a stylus pen. Still another object of the present invention is to provide a keypad assembly for a portable radiotelephone and a method of controlling the same, in which The keypad may operate as a conventional keypad and, either independently or simultaneously, as a touch sensitive pointing device, as taught by Bick in Page 2, Para 0025 & 0028. Murphy avoids the need for multiple keystrokes to enter non-numeric data such as alphabetic characters (including those of different languages)

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and symbols. It minimizes the need for dexterity in operation by providing an alternative to small keys on small keypads. The keypad may be used in a touch pad by sliding a finger over the surface of the keymat (Fig. 1-2; Abstract; Col. 2, line 37-Col. 3, line 42; Col. 4, line 58-Col. 5, line 53; and Col. 11, lines 4-27 of Murphy).

As for claim 17, Bick teaches a mobile telephone handset, wherein the controller selects a function corresponded to a size of the touched region detected by the electrostatic capacity sensing pad and executing the selected function (Page 3, Para 0038-0047 of Bick).

As for claim 18, Bick teaches a mobile telephone handset comprising: a ten-key pad being comprised of a key mat on which gaskets (Fig. 3 of Bick); which reads on claimed ten-key buttons with respective projections on the under surfaces thereof are laid out and a key circuit board (Fig. 1&2:7 of Bick) on which respective contacts corresponding to the projections are laid out (Page 2, Para 0034 of Bick); an electrostatic capacity sensing pad for sensing an electrostatic capacity change to detect a touched region and having through holes to be inserted the projections corresponding thereto and being provided with between the key mat and the key circuit board (Page 2, Para 0035 and Page 3-4, Para 0048 of Bick); and a controller (Fig. 4:10 of Bick) for selecting a function corresponded to a feature of the touched region detected by the electrostatic capacity sensing pad and executing the selected function (Page 3, Para 0038-0047 of Bick).

As for claim 19, Bick teaches a mobile telephone handset, wherein the controller selects a function according to a number of the touched regions detected by the

electrostatic capacity sensing pad simultaneously and executing the selected function (Page 1, Para 0008 and Page 3, Para 0038-0047 of Bick).

5. Claims 20-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bick (US Patent 2002/0049070) and further in view of Murphy (EP 1054550 A2).

As for claim 20, Bick teaches a mobile telephone handset comprising:

a ten-key pad being comprised of a key mat on which gaskets (Fig. 3 of Bick); which reads on claimed ten-key buttons with respective projections on the under surfaces thereof are laid out and a key circuit board (Fig. 1&2:7 of Bick) on which respective contacts corresponding to the projections are laid out (Page 2, Para 0034 of Bick);

an electrostatic capacity sensing pad for sensing an electrostatic capacity change to detect a touched region and having through holes to be inserted the projections corresponding thereto and being provided with a portion having the through holes between the key mat and the key circuit board (Fig. 1&2:7 of Bick) and with the other portion on a part of a chassis of the mobile telephone handset (Page 2, Para 0035 and Page 3-4, Para 0048 of Bick); and

a memory controller for storing the touched region detected by the electrostatic capacity sensing pad in a memory (Fig 2:15; Page 1, Para 0023; and Page 2, Para 0026-0027 of Bick);

a metal dome (Fig. 2:30 of Bick) function selector for selecting a function corresponded to a small region in which a representative point of the touched

region is situated; and a function controller for controlling the selected function according to a feature of the touched region detected by the electrostatic capacity sensing pad (Pages 1-2, Para 00124 and Page 2, Para 0026 of Bick).

What Bick does not explicitly teach is portable telephone handset; which is interpreted as a mobile telephone handset, is used for entering information by handwriting.

However, Murphy teaches a portable telephone handset apparatus, comprising: handwriting-input permits the user to input numerical, alphabetical or symbol characters and/or commands to the telephone by tracing patterns using a finger stylus on the surface (Fig. 1-2; Abstract; Col. 2, line 37-Col. 3, line 42; Col. 4, line 58-Col. 5, line 53; and Col. 11, lines 4-27 of Murphy). In addition, Murphy teaches pre-stored data elements; which can be interpreted as item names kept in the memory are background, line thickness, and line color (Col. 5, line 40-Col. 6, line 3 and Col. 11, lines 4-27 of Murphy).

It would have been obvious to one of ordinary skill of the art at the time the invention was made to incorporate a touch-sensitive LCD panel or keypad, as taught by Murphy, in keypad assembly for a portable radiotelephone wherein a keypad can also be used as a touch screen panel of Bick, because Bick already teaches a portable radiotelephone including a keypad assembly that can be used as a touch screen (Abstract; Page 2, Para 0025 & 0027-0028 of Bick).

The motivation of this combination would be is to provide a keypad assembly for a portable radiotelephone wherein a keypad can also be used as a touch screen panel

without increasing the volume of the radiotelephone, and a method of controlling the same. Further, another object of the present invention is to provide a keypad assembly for a portable radiotelephone and a method of controlling the same, in which when the keypad assembly is used for a touch screen function, it is unnecessary to employ an input means such as a stylus pen. Still another object of the present invention is to provide a keypad assembly for a portable radiotelephone and a method of controlling the same, in which The keypad may operate as a conventional keypad and, either independently or simultaneously, as a touch sensitive pointing device, as taught by Bick in Page 2, Para 0025 & 0028. Murphy avoids the need for multiple keystrokes to enter non-numeric data such as alphabetic characters (including those of different languages) and symbols. It minimizes the need for dexterity in operation by providing an alternative to small keys on small keypads. The keypad may be used in a touch pad by sliding a finger over the surface of the keymat (Fig. 1-2; Abstract; Col. 2, line 37-Col. 3, line 42; Col. 4, line 58-Col. 5, line 53; and Col. 11, lines 4-27 of Murphy).

As for claim 21, Bick teaches a mobile telephone handset, wherein the function controller controls the selected function according to a size of the touched region detected by the electrostatic capacity sensing pad (Page 2, Para 0035 and Page 3-4, Para 0048 of Bick).

As for claim 22, Bick teaches a mobile telephone handset comprising:

a direction determiner for determining a touch direction according to a figure of touched region detected by the electrostatic capacity sensing pad; (Page 1, Para 0003 and Pages 1-2, Para 0024 of Bick) and

a function controller for controlling the selected function according to a feature of the touched region detected by the electrostatic capacity sensing pad (Page 2, Para 0035 and Page 3-4, Para 0048 of Bick).

As for claim 23, Bick teaches a mobile telephone handset, wherein the function controller controls the selected function according to a number of the touched regions detected by the electrostatic capacity sensing pad simultaneously (Page 1, Para 0008 and Page 3, Para 0038-0047 of Bick).

Conclusion

6. Murphy teaches an electronic device includes a keypad and a sensor that indicates proximity of a user to the electronic device, whereupon the keys of the keypad are illuminated. In particular, when the distance between the user and the sensor is less than a predetermined threshold, the keypad is illuminated in anticipation of the user providing keypad input to the electronic device. The sensor can be an infrared, an ultrasonic, or a capacitive sensor. Alternately, the sensor can indicate contact between the user and the sensor, wherein the contact does not provide keypad input to the electronic device, for example, when the user touches but does not push a key of the keypad.

Partanen et al. teaches an user interface of a handwriting recognition system intended for use in small electronic devices, such as PDAs, mobile telephones, and laptop computers. The user interface is a semi-transparent window that opens in

response to a user-initiated manuscript input to any point on a touch-activated screen of a display of the electronic device. The semi-transparent window may be resized or moved, as desired by the user, and may be automatically sizable in response to the placement of the user's manuscript input on the touch-activated screen.

Ring teaches an user of a communication device may initiate a communication, i.e., a telephone call, a text message, a page, an alert and the like, via a macro manipulation of the device, silently and in a clandestine manner without having to identify and activate a particularly button or sequence of buttons on the communication device. The communication device may include housing into which is disposed a sensor that is actuated by the user. An input from the sensor is associated with a particular communication context. Responsive to the input from the sensor, the communication device initiates the communication according to the define context.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Janelle N. Young whose telephone number is (571) 272-2836. The examiner can normally be reached on Monday through Friday: 8:30 am through 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on (571) 272-7882. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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JNY
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